

Listing of Claims:

Sub B¹ Claim 1 (Canceled).

2. (Currently Amended) An image sensing apparatus for a microscope, comprising:

an image sensing unit for sensing an observation image obtained by a microscope and obtaining the observation image;

5 a microscopy technique determination unit for detecting a microscopy technique in the microscope;

Q² a chromaticity determination unit for determining chromaticity of the observation image based on ~~the basis of~~ the microscopy technique detected by said microscopy technique determination unit, and determining a region where color balance is to be adjusted in the observation image; and

10 a color balance adjustment unit for adjusting color balance in accordance with a color balance adjustment amount arbitrarily set for the region of the observation image determined by said chromaticity determination unit.

15 3. (Currently Amended) ~~An~~ The apparatus according to claim 2, further comprising:

a luminance distribution determination unit for calculating a luminance distribution of the observation image based on ~~the~~

5 ~~basis of~~ the microscopy technique detected by said microscopy
technique determination unit, and determining from the luminance
distribution a region where tone is to be corrected in the
observation image; and

10 a tone adjustment unit for correcting tone in accordance
with a tone correction amount arbitrarily set for the region of
the observation image determined by said luminance distribution
determination unit.

Q2
4. (Currently Amended) ~~An~~ The apparatus according to
claim 2, further comprising:

a display unit for displaying the observation image obtained
by said image sensing unit;

5 a white balance correction unit for correcting white balance
for the observation image sensed by said image sensing unit;

a position designation unit for designating a desired
position in the observation image displayed on said display unit;
and

10 a control unit for detecting white balance based on ~~the~~
~~basis of~~ image data at the position designated by said position
designation unit, and controlling said white balance correction
unit.

Claims 5-9 (Canceled).

10. (Currently Amended) An image sensing apparatus for a microscope, comprising:

an image sensing unit for sensing an observation image obtained by a microscope and obtaining the observation image;

5 a microscopy technique determination unit for detecting a microscopy technique in the microscope;

Q²
a luminance distribution determination unit for calculating a luminance distribution of the observation image based on ~~the basis of~~ the microscopy technique detected by said microscopy technique determination unit, and determining from the luminance distribution a region where tone is to be corrected in the observation image; and

10 a tone adjustment unit for correcting tone in accordance with a tone correction amount arbitrarily set for the region of the observation image determined by said luminance distribution determination unit.

11. (New) The apparatus according to claim 10, wherein when a fluorescent observation state is detected by the microscopy determination unit,

5 the luminance distribution determination unit identifies a low-luminance range representing a background and an intermediate-luminance range representing a fluorescent specimen part, from the luminance distribution of the observation image,

and determines a boundary between the low-luminance range and the intermediate-luminance range, and

10 the tone adjustment unit performs an arbitrarily set tone correction on the fluorescent specimen part.

Q2 12. (New) The apparatus according to claim 10, wherein when a transmission bright-field observation state is detected by the microscopy technique determination unit,

5 the luminance distribution determination unit identifies a high-luminance range representing a background and at least one of a low-luminance range and an intermediate-luminance range representing a bright-field specimen part from the luminance distribution of the observation image, and determines a boundary between the high-luminance range and the at least one of the low-luminance range and the intermediate-luminance range, and

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the tone adjustment unit performs an arbitrarily set tone correction on the bright-field specimen part.

13. (New) The apparatus according to claim 11, wherein the tone adjustment unit performs a tone-expanding correction on the fluorescent specimen part.

14. (New) The apparatus according to claim 12, wherein the tone adjustment unit performs a tone-expanding correction on the bright-field specimen part.